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10/568,599	01/03/2007	Steven Phillip Corcoran		4856

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EXAMINER
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MCPARTLIN, SARAH BURNHAM

ART UNIT	PAPER NUMBER
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3636

MAIL DATE	DELIVERY MODE
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05/01/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/568,599

**Applicant(s)**

CORCORAN, STEVEN PHILLIP

**Examiner**

SARAH MCPARTLIN

**Art Unit**

3636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-42 and 44-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-42, 46-54, 56-58, 60-66 is/are rejected.
- 7) ☒ Claim(s) 44, 45, 55 and 59 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 59 is objected to because of the following informalities: It appears as if the phrase "connected at least one joint" should be replaced with the phrase - - connected at at least one joint - - for the sake of clarity. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 27-35, 37-39, 50, 52-54, 57, 59, 60 and 62 are rejected as best understood with the above cited indefiniteness under 35 U.S.C. 102(e) as being anticipated by DeVoss et al. (6,488,337). With respect to claim 27, DeVoss discloses a raiser seat for assisting a person from a sitting to a standing position (Figure 1): a seat frame (28)(30); a seat (12) adapted for movement relative to the seat frame (28)(30) between a lowered position (see solid line depiction in Figure 1) and a raised position (see phantom line depiction in Figure 1); and a movement mechanism (22) comprises at least one cam (40) pivotally mounted with respect to the seat frame (28)(30) about an axis (50), the at least one cam (40) including a cam profile (i.e. it is generally triangular

in shape), the cam profile supporting and being movable with respect to the seat such that rotation of the at least one cam (40) results in movement of the seat (12) relative to the frame (28)(30) (see Figure 6) between the lowered position and the raised position. A second pair of coaxial cams (39) having a cam profile for supporting the seat are also provided.

With respect to claim 28, movement of the seat (12) between the lowered (Figure 5) and raised (Figure 6) positions includes combinations of lift and tilt simultaneously.

With respect to claim 29, the at least one cam has a profile (i.e. relatively triangular), and the profile of the at least one cam is configured to determine a movement profile of the seat (i.e. upwards and forwards) as it moves between the lowered and raised positions such that a combination of lift, tilt and cycle time (dependent upon the length of the cam (40) and speed at which link (44) pulls cam (40)) of the seat can be varied for a particular application.

With respect to claim 30, the seat (12) is securely retained to the at least one cam (40), via bracket (26).

With respect to claim 31, the seat (12) rests on the at least one cam (40) by way of support (26).

With respect to claim 32, the seat (12) is supported by the seat unit (20).

With respect to claim 33, the at least one cam (40) is retained within the seat unit (20).

With respect to claim 34, a motor (62) for rotating the at least one cam (40) is provided. The motor (62) driving the cam (40) indirectly.

With respect to claim 35, the movement mechanism (22) includes a pair of cams (40) which are coaxial via connecting rod (42).

With respect to claim 37, the movement mechanism (22) comprises at least one actuator (column 5, line 43) at a first end of the seat (12).

With respect to claim 38, the combination of the at least one cam (40) with the at least one actuator (un-illustrated) provides for part or the entire seat to translate substantially in a single direction (i.e. upward).

With respect to claim 39, a second end of the seat (i.e. a rear end) is fixed to the seat frame (28)(30) and is moveable relative to a first end in a generally vertical direction.

With respect to claim 43, the at least one cam (40) is pivotally mounted at one or more locations (i.e. pivot points (52) and (54)) in the seat unit (20) and that at least one cam (40) rotates around the place where it is pivotally mounted.

With respect to claim 50, the movement mechanism comprises a plurality of cams (40), each cam (40) has an individual motor for its power source such that each of the cams can be precisely controlled and the seat can be tilted and rotated side to side. Column 6, lines 46-54 disclose multiple drive mechanisms.

With respect to claim 52, a seat unit (20) is provided, the seat (12) being supported by the seat unit (20), wherein a second end (i.e. rear end) of the seat (12) is fixed to either the seat frame or the seat unit, the second end of the seat being moveable relative to the first end in a generally vertical direction.

With respect to claim 53, the seat unit comprises at least one reinforcing unit in the form of an upward extending portion which supports frame (28)(30).

With respect to claim 54, the at least one cam (40) is connected to the seat (12) by the use of a fixed connecting member (26) or protrusion extending from the at least one cam.

The connecting member (26) is of variable position by way of its pivotal connection with the cam (40).

With respect to claim 57, the at least one cam (40) has multiple rotation points.

With respect to claim 60, the connecting member (26) is engageable to provide two extra axes of movement.

With respect to claim 62, the seat frame (28)(30) comprises handles (32) located at any point on the seat frame to allow interaction with operators and users for accurate controlled movement and location with other components and assemblies.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeVoss (6,488,337) in view of Fischer et al. (5,782,533). As disclosed above, DeVoss

reveals all claimed elements with the exception of a guide track formed in the seat for interfacing with at least one connection member extending from the cam.

Fischer discloses a cam (52) for moving a seat (1). The cam includes a connection member (53) which interfaces with a track (510) formed in seat (1).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to add a guide track, as taught by Fischer, on the seat support (26) at a point where cam (40) is connected to the seat support. Such a modification would allow for greater horizontal translation of the seat thereby increasing the range over which the seat can travel.

6. Claims 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeVoss (6,488,337) in view of Bloswick (5,513,867). As disclosed above, DeVoss reveals all claimed elements with the exception of a seat frame mounted on wheels and brake system, wherein the lift portion of the seat is inoperable unless the brake system for the wheels is activated.

Bloswick discloses a seat frame mounted on wheels (24). Pivoting links (92) and (94) which allow lift of the seat (102) are only operable when wheel brake mechanism (98) is engaged with the wheel.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to mount the seat frame disclosed by DeVoss on wheels as taught by Bloswick. Such a modification provides easy maneuverability of the seat. Furthermore, applying a brake mechanism to the system that is automatically engaged upon

activation of the lift mechanism is an obvious safety enhancement decreasing the chance of accidental falls and slips from the seat.

7. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeVoss (6,488,337) in view of Kao et al. (7,021,713). As disclosed above, DeVoss reveals all claimed elements with the exception of a pneumatic cylinder for addition seat support.

Kao teaches the use of pneumatic cylinder (40) for additional support of a seat (22) which is lifted on cam/link elements (41)(34).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to add the pneumatic cylinder as taught by Kao et al. to the seat disclosed by DeVoss. Such a modification would remove some pressure/force from the camming elements, thereby decreasing the chance of breakage or premature failure of the device.

8. Claim 46-47 and 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeVoss (6,488,337) in view of Komura (6,783,179). As disclosed above, DeVoss reveals all claimed elements with the exception of a control box and circuitry to controlling the output of the motor.

Komura teaches the use of a control (not shown) for controlling movement of the wheeled lift chair.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to provide a controller as taught by Komura for the operator to use to



control the movement of the motor (62). Such an inclusion is readily known in the art as a means to activate / use a motor operated seat.

9. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeVoss (6,488,337) in view of Koga et al. (6,347,778). As disclosed above, DeVoss reveals all claimed elements with the exception of a pivoting backrest.

Koga discloses a backrest (15) which pivots by way of pivotal arm (12) with respect to the seat (14).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to pivot the backrest (14) disclosed by DeVoss with respect to the seat (12) as taught by Koga. Such a feature is conventional in the art for providing user adjustability for seating units.

10. Claims 49, 51, 63, 64 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeVoss (6,488,337) in view of DeWeese (5,161,812). As disclosed above, DeVoss reveals all claimed elements with the exception a seat with an aperture functioning as a commode.

DeWeese discloses a rolling and lift seat with a commode (26) integrated there.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to form a commode interface as taught by DeWeese in the seat disclosed by DeVoss. Such a modification would improve the versatility of the seating device, improving convenience for those seat occupant confined to the chair.

11. Claims 56 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeVoss (6,488,337) in view of Stewart (6,113,188). As disclosed above, DeVoss reveals all claimed elements with the exception of a roller shaft facilitating roller between the cam and the seat.

Stewart teaches the use of a guide track on a seat through which rollers, mounted on the ends of camming elements, slide.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to provide a roller and track interface between the cam (40) and the seat (12). Such a modification would provide for a greater range of motion for the seat, thereby increasing the user the adjustability of the device.

12. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeVoss (6,488,337) in view of Wullum (US 2005/0116519). As disclosed above, DeVoss reveals all claimed elements with the exception of a cam which is spring loaded.

Wullum discloses a spring loaded joint for a lift seat.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to spring load the cam (40) disclosed by DeVoss as taught by Wullum. Such a modification would ensure that the seat automatically assists in lifting a person to their feet once a threshold force is removed from the cam.

***Allowable Subject Matter***

13. Claims 44-45, 55 and 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Amendment/Arguments***

14. Applicant's amendment filed on January 22, 2009 has been considered in its entirety.

Applicant first argues that DeVoss does not disclose a cam wherein the point of contact between the seat and the cam profile is free to move along the seat and the cam profile, allowing the point of contact to move as the seat is moved between the lower position and the raised position. The Examiner respectfully points out that the claim requires a cam pivotally mounted with respect to the seat frame about an axis, the cam including a cam profile, the cam profile supporting and being movable with respect to the seat. The Examiner contends that element 40 is a cam that is pivotally mounted with respect to the seat frame about axis (50). The cam (40) has a cam profile (i.e. its profile is its triangular shaped peripheral edge). The cam profile supports the seat at pivot point (52). The cam profile is moveable with respect to the seat given the pivotal connection provided at point (52). The Examiner maintains that DeVoss reads on claim 27.

With respect to claim 31, the seat (12) rests on the cam profile by way of pivotal connection (52) and bracket (38). The word "rests" does not require direct contact

between the seat and the cam profile. The Examiner contends that the seat can rest on the cam profile by way of rear seat support (38) and pivot pin (52).

Applicant's arguments with respect to claim 44 are persuasive and claim 44 is indicated as including allowable subject matter above.

Applicant's arguments with respect to claim 55 are persuasive and claim 55 is indicated as including allowable subject matter above.

Applicant's arguments with respect to claim 59 are persuasive and claim 55 is indicated as including allowable subject matter above.

Applicant further argues that independent claims 63 and 66 are not obvious in view of the disclosures of DeVoss and DeWeese and offer multiple advantages over the prior art. Specifically, Applicant argues that both raising and tilting of the seat can be controlled by the cam profile and its ability to move with respect to the seat. The Examiner contends that the shape of the cams (40) dictate the raising and lowering of the seat due to the varied length of each of the cams' (40) sides. Therefore, the Examiner contends that both raising and tilting are indeed controlled by the cam profile. Applicant further argues that the claimed invention provide maximum range of movement of the seat without increasing the depth of the moving mechanism. This feature does not result in any structural differences reflected in Applicant's claim language.

### ***Conclusion***

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **SARAH MCPARTLIN** whose telephone number is (571)272-6854. The examiner can normally be reached on M-Th 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SARAH MCPARTLIN/

Examiner, Art Unit 3636

SBM  
April 30, 2009